

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
280 South 1st Street  
San Jose, CA 95113

[www.cand.uscourts.gov](http://www.cand.uscourts.gov)

Susan Y. Soong  
Clerk of Court

General Court Number  
408-535-5363

April 10, 2017

**Clerk of Court-Southern District of New York**  
500 Pearl Street,  
New York, NY 10007

Case Name: USA v. Zhengquan Zhang  
Case Number: 5-17-70527 -MAG (Your Case# 17mag2467)  
Charges: 18:1832 &2



Dear Clerk:

DOC #

The above charges originated in your district and the defendant has appeared before U.S. Magistrate Judge Susan van Keulen. The following action has been taken:

( ) The U.S. Marshal has been ordered to remove this defendant to your district forthwith.  
(x) The defendant has a court appearance in your court on:  
4/11/2017 @ 9:00am before Duty Magistrate Judge

Enclosed are the following documents:

(x) Original Rule 5 affidavit  
(x) Original minute orders  
(x) Original AO 467, *Order Requiring A Defendant to Appeal in the District Where Charges are Pending and Transferring Bail*  
(x) Original Waiver  
(x) Original Bond  
(x) Docket Sheets

Please acknowledge receipt of the documents on the attached copy of this letter and return in the envelope provided.

Susan Y. Soong  
Clerk, United States District Court

By: Cita F. Escalano  
Case Systems Administrator

Enclosures: cc: Financial Office (If applicable)

Receipt of the above-described documents is acknowledged herewith and assigned case number:

Date: \_\_\_\_\_

CLERK, U.S. DISTRICT COURT

By \_\_\_\_\_  
Deputy Clerk

~~FILED~~UNITED STATES DISTRICT COURT  
for the

Northern District of California

SUSAN Y. SOONG  
CLERK, U.S. DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN JOSE

APR 07 2017

United States of America

v.

Zhengquan Zhang

Defendant

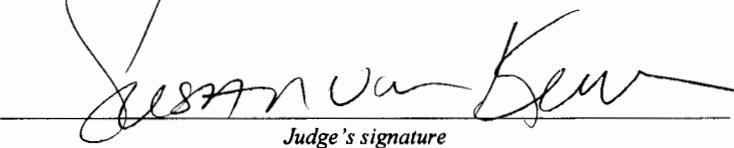
) Case No. 17-mj-70527-MAG  
 ) Charging District: Southern District of New York  
 ) Charging District's Case No. 17 Mag 2467

**ORDER REQUIRING A DEFENDANT TO APPEAR IN THE DISTRICT  
WHERE CHARGES ARE PENDING AND TRANSFERRING BAIL**

After a hearing in this court, the defendant is released from custody and ordered to appear in the district court where the charges are pending to answer those charges. If the time to appear in that court has not yet been set, the defendant must appear when notified to do so. Otherwise, the time and place to appear in that court are:

|   |                                      |
|---|--------------------------------------|
| Place: U.S District Court, Southern District of New York<br>500 Pearl Street, New York, NY 10007-1312 | Courtroom No.: Duty Magistrate Judge |
|   | Date and Time: 4/11/2017 9:00 am     |

The clerk is ordered to transfer any bail deposited in the registry of this court to the clerk of the court where the charges are pending.

Date: 04/07/2017  
Judge's signatureSusan van Keulen, United States Magistrate Judge

Printed name and title

  
5

FILED

AO 466A (Rev. 12/09) Waiver of Rule 5 &amp; 5.1 Hearings (Complaint or Indictment)

## UNITED STATES DISTRICT COURT

for the

SUSAN Y. SOONG  
CLERK, U.S. DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN JOSE

APR 07 2017

United States of America

v.

Zhengquan Zhang  
Defendant

Case No. 17-mj-70527

Charging District's Case No. 17-mj-2467

WAIVER OF RULE 5 & 5.1 HEARINGS  
(Complaint or Indictment)

I understand that I have been charged in another district, the (name of other court)

Southern District of New  
York

I have been informed of the charges and of my rights to:

- (1) retain counsel or request the assignment of counsel if I am unable to retain counsel;
- (2) an identity hearing to determine whether I am the person named in the charges;
- (3) production of the warrant, a certified copy of the warrant, or a reliable electronic copy of either;
- (4) a preliminary hearing within 14 days of my first appearance if I am in custody and 21 days otherwise — unless I am indicted — to determine whether there is probable cause to believe that an offense has been committed;
- (5) a hearing on any motion by the government for detention;
- (6) request transfer of the proceedings to this district under Fed. R. Crim. P. 20, to plead guilty.

I agree to waive my right(s) to:

an identity hearing and production of the warrant.

a preliminary hearing.

a detention hearing.

an identity hearing, production of the warrant, and any preliminary or detention hearing to which I may be entitled in this district. I request that those hearings be held in the prosecuting district, at a time set by that court.

I consent to the issuance of an order requiring my appearance in the prosecuting district where the charges are pending against me.

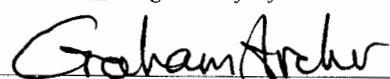
Date:

04/07/2017

Defendant's signature



Signature of defendant's attorney



Printed name of defendant's attorney



| UNITED STATES DISTRICT COURT<br>NORTHERN DISTRICT OF CALIFORNIA |   | ORDER SETTING CONDITIONS OF<br>RELEASE AND APPEARANCE BOND |  | DATE                                      | CASE NUMBER  |
|---|---|--|--|---|--|
| NAME OF DEFENDANT   |   |  |  | 4/7/17                                    | 17-mj-70527  |
| Zhengquan Zhang   |   |  |  | ADDRESS OF DEFENDANT                      | TELEPHONE NUMBER                                     |
| NAME OF SURETY  | RELATIONSHIP TO DEFENDANT                     |  |  | 1242 Washington St, Santa Clara, CA       | 646-535-8168   |
|   |   |  |  | ADDRESS OF SURETY                         | TELEPHONE NUMBER                                     |
| NAME OF CUSTODIAN   | RELATIONSHIP TO DEFENDANT                     |  |  | ADDRESS OF CUSTODIAN                      | TELEPHONE NUMBER                                     |
| \$100,000   | <input checked="" type="checkbox"/> UNSECURED | <input type="checkbox"/> SECURED BY \$                     | <input type="checkbox"/> DEPOSIT RECEIVED RECEIVED FROM: | OTHER SECURITY POSTED<br>TO BE POSTED BY: | TIME/DATE OF NEXT APPEARANCE<br>FILED<br>APR 07 2017 |

## CONDITIONS OF RELEASE AND APPEARANCE

APR 07 2017

Defendant is subject to each condition checked:

SUSAN Y. SONG

CLERK, U.S. DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN JOSE

23  Defendant shall appear at all proceedings as ordered by the Court and shall surrender for service of any sentence imposed.

27  Defendant shall not commit any federal, state, or local crime.

22  Defendant shall not harass, threaten, intimidate, injure, tamper with, or retaliate against any witness, victim, informant, juror, or officer of the Court, or obstruct any criminal investigation. See 18 U.S.C. 1503, 1510, 1512, and 1513, on reverse side.

22  Defendant shall not travel outside the Northern District of California, that is, these counties: Alameda, Contra Costa, Del Norte, Humboldt, Lake, Marin, Mendocino, Monterey, Napa, San Benito, San Francisco, San Mateo, Santa Clara, Santa Cruz, and Sonoma. See map on reverse side.

27  Defendant shall report in person immediately upon release and thereafter as directed to Pretrial Services in San Jose. See addresses and telephone numbers on reverse side.

27  Defendant shall surrender all passports and visas to the Court by 4/7/17 or to law enforcement when requested.

27  Defendant shall not possess any firearm, destructive device, or other dangerous weapon.

Defendant shall remain in the custody of custodian \_\_\_\_\_ at \_\_\_\_\_ who agrees to supervise him/her and to report any violation of a release condition to Pretrial Services. A custodian who fails to do so may be prosecuted for contempt.

Defendant shall participate in (drug) (alcohol) (mental health) counseling, and submit to (drug) (alcohol) testing, as directed by Pretrial Services.

Defendant shall not use alcohol to excess and shall not use or possess any narcotic or other controlled substance without a legal prescription.

Defendant shall maintain current employment, or if unemployed shall seek and maintain verifiable employment.

Defendant shall submit to a warrantless search of his/her person, place of residence and vehicle at the direction of Pretrial Services.

Defendant shall have no contact with any co-defendant out of the presence of counsel.

27  Defendant shall not change residence without prior approval of Pretrial Services.

Defendant shall comply with the following curfew: \_\_\_\_\_ to \_\_\_\_\_.

Defendant shall be subject to electronic or voice track monitoring. Defendant may leave home for the purpose of \_\_\_\_\_.

Defendant must  reside in Halfway House \_\_\_\_\_  participate in Residential Treatment \_\_\_\_\_.

27  The following conditions also apply:

No use of computers or access to the internet until appearance  
be in the Southern District of New York, or direct others  
to do so.

Defendant shall contribute to the cost of services provided by Pretrial Services as directed by Pretrial Services.

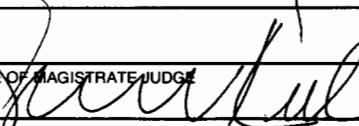
## CONSEQUENCES OF DEFENDANT'S FAILURE TO OBEY CONDITIONS OF RELEASE

Payment of the full amount of this bond shall be due forthwith, and all cash or property posted to secure it shall be forfeited. Judgment may be entered and executed against defendant and all sureties jointly and severally.

An arrest warrant for defendant shall issue immediately, and defendant may be detained without bail for the rest of the proceedings.

Defendant shall be subject to consecutive sentences and fines for failure to appear and/or for committing an offense while on release. See 18 U.S.C. 3146 and 3147, on reverse side.

We, the undersigned, have read and understand the terms of this bond and acknowledge that we are bound by it until duly exonerated.

|  |   |
|--|---|
| SIGNATURE OF DEFENDANT<br>  | SIGNATURE(S) OF SURETY(ies)<br>  |
| SIGNATURE OF CUSTODIAN<br> |   |
| THIS ORDER AUTHORIZES THE MARSHAL TO RELEASE DEFENDANT FROM CUSTODY.   | SIGNATURE OF MAGISTRATE/JUDGE<br> |
|  | DATE 4/7/17   |

DOCUMENTS UNDER SEAL 

TOTAL TIME (mins): 15 mins.

|  |  |                              |  |  |                                   |                                |
|--|--|------------------------------|--|--|-----------------------------------|--------------------------------|
| <b>MAGISTRATE JUDGE<br/>MINUTE ORDER</b> |  | DEPUTY CLERK<br>Oscar Rivera |  |  | REPORTER/FTR<br>FTR: 1:42 to 1:57 |                                |
| MAGISTRATE JUDGE<br>Susan van Keulen     |  | DATE<br>April 7, 2017        |  |  | NEW CASE <input type="checkbox"/> | CASE NUMBER<br>17-mj-70527-MAG |

**APPEARANCES**

|                                     |  |           |           |  |   |
|-------------------------------------|--|-----------|-----------|--|---|
| DEFENDANT<br>Zhengquan Zhang        | AGE<br>Y                               | CUST<br>P | P/NP<br>P | ATTORNEY FOR DEFENDANT<br>Graham Archer, provisionally apptd | PD. <input checked="" type="checkbox"/> RET. <input type="checkbox"/><br>APPT. <input type="checkbox"/> |
| U.S. ATTORNEY<br>Joseph Springsteen | INTERPRETER<br>Not Requested           |           |           | FIN. AFFT<br>SUBMITTED                                       | COUNSEL APPT'D  |
| PROBATION OFFICER                   | PRETRIAL SERVICES OFFICER<br>Allen Lew |           |           | DEF ELIGIBLE FOR<br>APPT'D COUNSEL                           | PARTIAL PAYMENT<br>OF CJA FEES  |

**PROCEEDINGS SCHEDULED TO OCCUR**

|   |   |  |  |   |
|---|---|--|--|---|
| <input checked="" type="checkbox"/> INITIAL APPEAR<br>(3) | <input type="checkbox"/> PRELIM HRG     | <input type="checkbox"/> MOTION                          | <input type="checkbox"/> JUGM'T & SENTG            | <input type="checkbox"/> STATUS<br>TRIAL SET  |
| <input type="checkbox"/> I.D. COUNSEL                     | <input type="checkbox"/> ARRAIGNMENT    | <input checked="" type="checkbox"/> BOND HEARING<br>(12) | <input type="checkbox"/> IA REV PROB. or<br>or S/R | <input type="checkbox"/> OTHER                |
| <input type="checkbox"/> DETENTION HRG                    | <input type="checkbox"/> ID / REMOV HRG | <input type="checkbox"/> CHANGE PLEA                     | <input type="checkbox"/> PROB. REVOC.              | <input type="checkbox"/> ATTY APPT<br>HEARING |

**INITIAL APPEARANCE**

|  |   |  |   |
|--|---|--|---|
| <input checked="" type="checkbox"/> ADVISED<br>OF RIGHTS | <input checked="" type="checkbox"/> ADVISED<br>OF CHARGES | <input type="checkbox"/> NAME AS CHARGED<br>IS TRUE NAME | <input type="checkbox"/> TRUE NAME:                 |
| <b>ARRAIGNMENT</b>                                       |   |  |   |
| <input type="checkbox"/> ARRAIGNED ON<br>INFORMATION     | <input type="checkbox"/> ARRAIGNED ON<br>INDICTMENT       | <input type="checkbox"/> READING WAIVED<br>SUBSTANCE     | <input type="checkbox"/> WAIVER OF INDICTMENT FILED |

**RELEASE**

|   |   |                                  |                                 |   |
|---|---|----------------------------------|---------------------------------|---|
| <input type="checkbox"/> RELEASED<br>ON O/R | <input checked="" type="checkbox"/> ISSUED<br>APPEARANCE BOND | AMT OF SECURITY<br>\$ 100,000.00 | SPECIAL NOTES<br>Signature Bond | <input type="checkbox"/> PASSPORT<br>SURRENDERED<br>DATE: |
|---|---|----------------------------------|---------------------------------|---|

|   |   |  |  |   |
|---|---|--|--|---|
| PROPERTY TO BE POSTED<br><input type="checkbox"/> CASH \$ | CORPORATE SECURITY <input type="checkbox"/> |  |  | REAL PROPERTY: <input type="checkbox"/> |
|---|---|--|--|---|

|   |   |                                   |  |   |   |
|---|---|-----------------------------------|--|---|---|
| <input type="checkbox"/> MOTION<br>FOR<br>DETENTION | <input type="checkbox"/> PRETRIAL<br>SERVICES<br>REPORT | <input type="checkbox"/> DETAINED | <input checked="" type="checkbox"/> RELEASED | <input type="checkbox"/> DETENTION HEARING<br>AND FORMAL FINDINGS<br>WAIVED | <input type="checkbox"/> REMANDED<br>TO CUSTODY |
|---|---|-----------------------------------|--|---|---|

**ORDER REMOVED TO THE DISTRICT OF****PLEA**

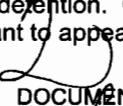
|  |   |  |  |  |
|--|---|--|--|--|
| <input type="checkbox"/> CONSENT<br>ENTERED            | <input type="checkbox"/> NOT GUILTY     | <input type="checkbox"/> GUILTY                  | GUILTY TO COUNTS: <input type="checkbox"/> |  |
| <input type="checkbox"/> PRESENTENCE<br>REPORT ORDERED | <input type="checkbox"/> CHANGE OF PLEA | <input type="checkbox"/> PLEA AGREEMENT<br>FILED | OTHER:                                     |  |

**CONTINUANCE**

|             |  |   |   |   |
|-------------|--|---|---|---|
| TO:         | <input type="checkbox"/> ATTY APPT<br>HEARING                      | <input type="checkbox"/> BOND<br>HEARING                  | <input type="checkbox"/> STATUS RE:<br>CONSENT  | <input type="checkbox"/> TRIAL SET                |
| AT:         | <input type="checkbox"/> SUBMIT FINAN.<br>AFFIDAVIT                | <input type="checkbox"/> PRELIMINARY<br>HEARING           | <input type="checkbox"/> CHANGE OF<br>PLEA      | <input type="checkbox"/> STATUS                   |
| BEFORE HON. | <input type="checkbox"/> DETENTION<br>HEARING                      | <input type="checkbox"/> ARRAIGNMENT                      | <input type="checkbox"/> MOTIONS                | <input type="checkbox"/> JUDGMENT &<br>SENTENCING |
| TIME WAIVED | <input type="checkbox"/> TIME EXCLUDABLE<br>UNDER 18 § USC<br>3161 | <input type="checkbox"/> IDENTITY /<br>REMOVAL<br>HEARING | <input type="checkbox"/> PRETRIAL<br>CONFERENCE | <input type="checkbox"/> PROB/SUP REV.<br>HEARING |

**ADDITIONAL PROCEEDINGS**

Complaint previously unsealed in the charging district. The government does not seek detention. Conditions of release are set. Waiver of Rule 5 & 5.1 Hearings is executed and accepted in open court. Defendant to appear in Southern District of New York 4/11/17 at 9:00 AM before the duty Magistrate Judge.


 DOCUMENT NUMBER:

FILED

APR 07 2017

1 Brian Stretch  
2 United States Attorney  
3 450 Golden Gate Ave (11<sup>th</sup> Floor)  
4 San Francisco, CA 94102  
5 Telephone: (415) 436-7200

SUSAN Y. SOONG  
CLERK, U.S. DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN JOSE

6 Attorneys for the United States

7  
8 UNITED STATES DISTRICT COURT  
9  
10 NORTHERN DISTRICT OF CALIFORNIA  
11  
12 SAN JOSE DIVISION

13  
14 UNITED STATES OF AMERICA, ) CRIMINAL NO. 17-mj-70527-MAG  
15 Plaintiff, )  
16 v. )  
17 Zhengquan Zhang )  
18 Defendant. )  
19  
20 Please take notice pursuant to Rules 5(c)(2) and (3) of the Federal Rules of Criminal  
21 Procedure that on 4/7/17, the above-named defendant was arrested based upon an  
22 arrest warrant (copy attached) issued upon an  
23  
24  Indictment  Information  Criminal Complaint  Other \_\_\_\_\_  
25 pending in the Southern District of New York, Case Number 17 MAG 2467  
26  
27 In that case, the defendant is charged with a violation(s) of Title(s) \_\_\_\_\_ United States Code,  
28 Section(s) \_\_\_\_\_.  
29  
30 Description of Charges: Please see attached

31 Date: 4/7/17

32 Respectfully Submitted,  
33 Brian Stretch  
34 UNITED STATES ATTORNEY  
35  
36 Assistant U.S. Attorney

Mod AO 442 (09/13) Arrest Warrant AUSA Name &amp; Telno: Eun Young Choi/Won S. Shin - (212) 637-2187/2226

UNITED STATES DISTRICT COURT  
for the  
Southern District of New York

ORIGINAL

United States of America

v.  
ZHENGQUAN ZHANG,  
a/k/a "Zheng Quan Zhang,"  
a/k/a "Jim Z. Zhang,"

Case No. 17 Mag. 2467

*Defendant*

17 70527 MAG

## ARREST WARRANT

To. Any authorized law enforcement officer

**YOU ARE COMMANDED** to arrest and bring before a United States magistrate judge without unnecessary delay  
 (name of person to be arrested) ZHENGQUAN ZHANG, a/k/a "Zheng Quan Zhang," a/k/a "Jim Z. Zhang,"  
 who is accused of an offense or violation based on the following document filed with the court:

Indictment     Superseding Indictment     Information     Superseding Information     Complaint  
 Probation Violation Petition     Supervised Release Violation Petition     Violation Notice     Order of the Court

This offense is briefly described as follows.

Theft of trade secrets, 18 U.S.C. 1832 and 2

Date: 04/03/2017City and state: New York, NY

Hon. Andrew J. Peck, U.S. Magistrate Judge

Printed name and title

## Return

This warrant was received on (date) \_\_\_\_\_, and the person was arrested on (date) \_\_\_\_\_  
 at (city and state) \_\_\_\_\_.

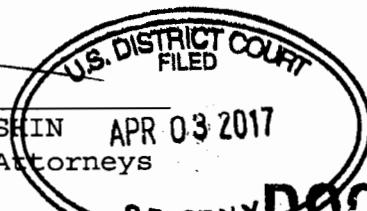
Date: \_\_\_\_\_

Arresting officer's signature \_\_\_\_\_

Printed name and title \_\_\_\_\_

A TRUE COPY  
 UNITED STATES MAGISTRATE  
 FOR THE SOUTHERN DISTRICT OF N.Y.  
 [Signature] DEPUTY CLERK

ORIGINAL

Approved: EUN YOUNG CHOI / WON S. SHIN  
Assistant United States AttorneysBefore: THE HONORABLE JAMES C. FRANCIS  
United States Magistrate Judge  
Southern District of New York

S.D. OF NY DOC #

17 Mag. 2467

UNITED STATES OF AMERICA

SEALED AMENDED COMPLAINT

- v. - : Violations of  
ZHENGQUAN ZHANG, : 18 U.S.C. §§ 1832 and 2  
a/k/a "Zheng Quan Zhang," : COUNTY OF OFFENSE:  
a/k/a "Jim Z. Zhang," : NEW YORK

Defendant.

SOUTHERN DISTRICT OF NEW YORK, ss.:

MICHAEL DENICOLA, being duly sworn, deposes and says that he is a Special Agent with the Federal Bureau of Investigation (the "FBI"), and charges as follows:

COUNT ONE  
(Theft of Trade Secrets)

1. From at least in or about December 2016 through in or about March 2017, in the Southern District of New York and elsewhere, ZHENGQUAN ZHANG, a/k/a "Zheng Quan Zhang," a/k/a "Jim Z. Zhang," the defendant, with the intent to convert a trade secret that is related to a product and service used in and intended for use in interstate and foreign commerce, to the economic benefit of others than the owner thereof, and intending and knowing that the offense would injure the owner of that trade secret, knowingly did steal, and without authorization appropriate, take, carry away, and conceal, and by fraud, artifice and deception obtain such information; and without authorization did copy, duplicate, sketch, draw, photograph, download, upload, alter, destroy, photocopy, replicate, transmit, deliver, send, mail, communicate, and convey such information; and attempted to do so, to wit, ZHANG stole and attempted to convert to his own use the computer source code

underlying proprietary trading software, which was a trade secret of a financial services company for which ZHANG worked.

(Title 18, United States Code, Sections 1832 and 2.)

The bases for my knowledge and for the foregoing charges are, in part, as follows:

2.. I am a Special Agent with the FBI, and I have been personally involved in the investigation of this matter. I have been a Special Agent with the FBI since approximately June 2015. Since becoming a Special Agent with the FBI, I have been assigned to a computer intrusion squad in the FBI's New York Field Office. In that role, I have participated in numerous investigations of computer crimes, among other federal crimes. This affidavit is based upon my own observations, conversations with witnesses, and conversations with other law enforcement agents, as well as on my examination of reports and records prepared by others. Because this affidavit is being submitted for the limited purpose of establishing probable cause, it does not include all of the facts that I have learned during the course of this investigation. Where the contents of documents and the actions, statements, and conversations of others are reported herein, they are reported in substance and in part, except where otherwise indicated.

3. In the course of this investigation, I have spoken to representatives of a financial firm engaged in the trading of a variety of publicly traded securities and other financial products ("Firm-1") and reviewed publicly available documents and records. Based on those conversations and that review, I am aware of the following information, in substance and in part, regarding the operations of Firm-1:

a. Firm-1 acts as a market maker, facilitating trading and liquidity in a variety of financial markets. Firm-1 engages in billions of dollars of equities and fixed income trading on a daily basis.

b. Firm-1 is headquartered in New York, New York and maintains offices and other facilities in various locations in the United States and abroad, including but not limited to an office in San Jose, California and a data center

in Purchase, New York. The majority of Firm-1's employees are located at Firm-1's New York headquarters.

4. In the course of this investigation, I have spoken to representatives of Firm-1 and reviewed internal Firm-1 documents and records. Based on those conversations and that review, I am aware of the following information, in substance and in part, regarding the trading operations of Firm-1:

a. A substantial portion of the trading done by Firm-1's employees is facilitated by the use of Firm-1's proprietary algorithmic trading models (collectively, the "Trading Models"). Firm-1 developed the Trading Models to, among other things, predict market movements and make trading decisions. Firm-1's employees utilize the Trading Models in making trades involving publicly traded securities and other financial products in interstate commerce.

b. A substantial portion of the trading done by Firm-1's employees is executed through the use of Firm-1's proprietary trading platforms (collectively, the "Trading Platforms"). Firm-1 developed the Trading Platforms to, among other things, create orders and automatically submit those orders to an exchange or market center, as well as execute orders. Firm-1's employees utilize the Trading Platforms in executing trades involving publicly traded securities and other financial products in interstate commerce.

c. The trading decisions resulting from Firm-1's use of the Trading Models, and the efficiencies resulting from Firm-1's use of the Trading Platforms, contribute substantially to Firm-1's market share in the financial markets in which Firm-1 trades and to Firm-1's overall trading profits. The competitive advantages and economic value that Firm-1 derives from the Trading Models and the Trading Platforms depend in part on their not being disclosed to a competitor or to the public.

d. Because of the proprietary nature of the Trading Models and the Trading Platforms, Firm-1 has put in place a variety of measures designed in part to protect the computer source code that comprises the Trading Models (the "Trading Models Source Code") and the computer source code that comprises the Trading Platforms (the "Trading Platforms Source

Code") from disclosure to a competitor or to the public. For example:

i. The Trading Platforms Source Code is maintained in a software repository platform (the "Software Repository"). Firm-1 employees use a unique login identifier and password to log into the Software Repository. Within the Software Repository, only Firm-1 employees involved in the development or support of the Trading Platforms are permitted to access the Trading Platforms Source Code.

ii. The Trading Models Source Code is also maintained in the Software Repository. Firm-1 employees use a unique encryption key to encrypt and decrypt the Trading Models Source Code. Within the Software Repository, only Firm-1 employees involved in the development of the Trading Models are permitted to access the Trading Models Source Code. Moreover, those employees are given only certain encryption keys, in order to limit their access to a subset of the Trading Models.

iii. Firm-1 does not permit its employees to utilize external e-mail or file sharing websites on their work computers. Firm-1 further does not permit its employees to download data from their work computers to USB drives or other portable storage devices.

iv. Firm-1 employees sign agreements detailing, among other things, the confidential nature of Firm-1's work and Firm-1's ownership of work product developed in the course of that work.

v. Firm-1 employees are provided an employee handbook and a code of business conduct and ethics setting forth, among other things, Firm-1's requirements that employees maintain the confidentiality of non-public Firm-1 information and protect Firm-1's proprietary information, including its trade secrets and other intellectual property. Firm-1 employees acknowledge their agreement with such policies when they are hired and periodically during their employment.

5. In the course of this investigation, I have spoken to employees and representatives of Firm-1, including, among others, technical analysts employed by Firm-1. I have also reviewed various documents, including emails and communications, provided by Firm-1. Based on those

conversations and that review, I am aware of the following information, in substance and in part, regarding the employment of ZHENGQUAN ZHANG, a/k/a "Zheng Quan Zhang," a/k/a "Jim Z. Zhang," the defendant, by Firm-1:

a. Beginning in or about March 2010, ZHANG was employed by Firm-1 in technical roles within Firm-1. Although ZHANG initially worked out of Firm-1's offices in the greater New York City area, in or about November 2015, Firm-1 transferred ZHANG to its offices in San Jose, California, at his request.

b. Prior to December 2016, ZHANG was assigned to the technical operations and development operations group at Firm-1, which is responsible for, among other things, ensuring that the Trading Platforms and associated trading applications function correctly, and to address any issues that might arise. While working in that capacity, ZHANG was supervised by and reported to an individual employed by Firm-1 ("Individual-1").

c. Starting in December 2016, in addition to his work for the technical operations and development operations group at Firm-1, ZHANG also began working for the infrastructure group at Firm-1, which is responsible for, among other things, systems administration and troubleshooting server, network, and hardware issues as they arise. In order to facilitate his responsibilities as part of the infrastructure group, ZHANG was granted expanded access privileges to Firm-1 computers running a Unix-based operating system, which gave ZHANG access to, among other things, the Software Repository. ZHANG was not granted expanded access privileges to other Firm-1 computers running a Windows-based operating system.

d. On or about Saturday, March 25, 2017, an individual employed by Firm-1 as a quantitative analyst ("Analyst-1") logged in remotely to Analyst-1's computer desktop on Firm-1's Windows-based network. Analyst-1 specializes in performing research and programming to create Trading Models. Shortly after remotely logging into his computer desktop, Analyst-1's remote desktop session closed because another user had logged into the same remote desktop. Analyst-1 logged in again to the remote desktop, only to see that it appeared that another user had opened the file folder that held Analyst-1's archived email mailboxes. Analyst-1 continued to work remotely through the evening but was repeatedly disconnected due to

another user logging in. Analyst-1 was able to ascertain the unique identifier associated with the other user who was logging into Analyst-1's remote desktop.

e. On or about Sunday, March 26, 2017, Analyst-1 notified Firm-1's network security group of this unusual activity, and provided the unique identifier that Analyst-1 had observed logging in to Analyst-1's remote desktop. Using that identifier, Firm-1's network security group determined that ZHANG had been accessing Analyst-1's remote desktop without authorization. Firm-1 then disconnected all computer access privileges for ZHANG.

f. Early in the morning on or about Monday, March 27, 2017, ZHANG sent an email to Individual-1, in which ZHANG wrote, in part, that ZHANG had determined that his Windows account had been terminated, which he knew "would happen because [of] what I did in the past few days and Saturday. I am still questioning myself why I did that." ZHANG further stated that on Saturday, he had "remotely logged in a few desktops randomly without authorization, using [his] Mac laptop." ZHANG explained that he was able to do so because he had modified (without authorization from Firm-1) a specific web application used by Firm-1 employees so that ZHANG could capture individual users' logins and passwords. ZHANG stated that he had done so because he was aware of a potential acquisition of Firm-1, which he believed might place his job at risk, and that he sought to understand the status of the company through gaining access to these users' accounts.

g. Later that day, ZHANG sent a text message to Individual-1, stating in part that he was about to go to the office "to hear [the] verdict" and asking if Individual-1 was available to speak. Individual-1 and ZHANG then had a telephone conversation, in which ZHANG admitted to Individual-1 that he had also accessed the remote desktop of another quantitative analyst based in Firm-1's headquarters in New York City ("Analyst-2").

6. In the course of this investigation, I have spoken to employees and representatives of Firm-1, including, among others, technical analysts employed by Firm-1. Based on those conversations, I am aware of the following information, in substance and in part, regarding Firm-1's subsequent broader

investigation of the activities of ZHENGQUAN ZHANG, a/k/a "Zheng Quan Zhang," a/k/a "Jim Z. Zhang," the defendant:

a. In the course of its investigation of ZHANG, Firm-1 has reviewed various data relating to ZHANG's computer activity. Pursuant to that review, Firm-1 has found evidence that ZHANG successfully exfiltrated the source code for multiple Trading Models and Trading Platforms to a third-party software development site (the "Development Website"). Firm-1 has found evidence that ZHANG's efforts to steal this data began at least as early as December 2016.

b. Firm-1's technical staff determined that ZHANG installed on Firm-1's systems computer code designed to look for encryption keys on the servers used to build the Trading Models. Doing so would have enabled ZHANG to gain access to much larger portions, if not the entirety, of the Trading Models Source Code.

c. In addition, Firm-1 identified an area of its computer networks where ZHANG stored data - over 3 million files - prior to uploading it onto the Development Website. Firm-1's review of that data shows, among other things, that ZHANG gained unauthorized access to unencrypted portions of the Trading Models Source Code.

d. In addition, Firm-1 identified computer code that ZHANG had written to exfiltrate data to the Development Website. Firm-1's review of that data shows, among other things, that ZHANG uploaded to the Development Website unencrypted portions of the Trading Models Source Code, as well as email mailbox files assigned to the head of the quantitative side of Firm-1's market making group. ZHANG also accessed the Development Website thousands of times from Firm-1's networks.

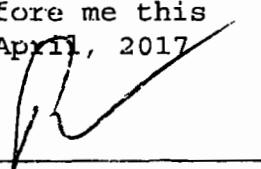
e. All communications between Firm-1's computer network and the external internet pass through a proxy server. Firm-1's primary proxy server is maintained by a third-party vendor. Firm-1's backup proxy server is maintained at Firm-1's data center in Purchase, New York. The computer code that ZHANG wrote to exfiltrate data to the Development Website was designed to route all of the data through Firm-1's backup proxy server in Purchase, New York.

WHEREFORE, I respectfully request that an arrest warrant be issued for ZHENGQUAN ZHANG, a/k/a "Zheng Quan Zhang," a/k/a "Jim Z. Zhang," the defendant, and that ZHANG be arrested and imprisoned or bailed, as the case may be.



MICHAEL DENICOLA  
Special Agent  
Federal Bureau of Investigation

Sworn to before me this  
3rd day of April, 2017



THE HONORABLE ANDREW J. PECK  
UNITED STATES MAGISTRATE JUDGE  
SOUTHERN DISTRICT OF NEW YORK



408-535-5588

Email: [joseph.springsteen@usdoj.gov](mailto:joseph.springsteen@usdoj.gov)

LEAD ATTORNEY

ATTORNEY TO BE NOTICED

Designation: Assistant US Attorney

| Date Filed | #  | Docket Text  |
|------------|--|--|
| 04/07/2017 | <u>1</u>   | Notice of Proceedings on Out-of-District Criminal Charges Pursuant to Rules 5(c)(2) and (3) of the Federal Rules of Criminal Procedure as to Zhengquan Zhang (1). (cfeS, COURT STAFF) (Filed on 4/7/2017) (Entered: 04/10/2017)  |
| 04/07/2017 |  | CASE DESIGNATED for Electronic Filing. (cfeS, COURT STAFF) (Filed on 4/7/2017) (Entered: 04/10/2017)   |
| 04/07/2017 | <u>2</u>   | Minute Entry for proceedings held before Judge Judge Susan van Keulen: Initial Appearance as to Zhengquan Zhang held on 4/7/2017, Bond Hearing as to Zhengquan Zhang held on 4/7/2017. Complaint previously unsealed in the charging district. The government does not seek detention. Conditions of release are set. Waiver of Rule 5 and 5.1 Hearings is executed and accepted in open court. Defendant to appear in the SDNY on 4/11/17 at 9:00am before the duty Magistrate Judge. FTR Time 1:42-1:57pm(15mins). (cfeS, COURT STAFF) (Filed on 4/7/2017) (Entered: 04/10/2017) |
| 04/07/2017 |  <u>3</u> | <b>ORDER Setting Conditions of Release \$100,000 UNSECURED BOND Entered as to Zhengquan Zhang. Signed by Judge Magistrate Judge Susan van Keulen on 4/7/17. (cfeS, COURT STAFF) (Filed on 4/7/2017) (Entered: 04/10/2017)</b>  |
| 04/07/2017 | <u>4</u>   | WAIVER of Rule 5 & 5.1 Hearings by Zhengquan Zhang (cfeS, COURT STAFF) (Filed on 4/7/2017) (Entered: 04/10/2017)   |
| 04/07/2017 | <u>5</u>   | <b>ORDER REQUIRING A DEFENDANT TO APPEAR IN THE DISTRICT WHERE CHARGES ARE PENDING AND TRANSFERRING BAIL as to Zhengquan Zhang. Defendant committed to District of SDNY, New York. Signed by Judge Magistrate Judge Susan van Keulen on 4/7/17. (cfeS, COURT STAFF) (Filed on 4/7/2017) (Entered: 04/10/2017)</b>  |
| 04/07/2017 |           | (Court only) ***Case Terminated as to Zhengquan Zhang (cfeS, COURT STAFF) (Filed on 4/7/2017) (Entered: 04/10/2017)  |
| 04/10/2017 | <u>6</u>   | Mailed Rule 5 documents to SDNY, New York as to Zhengquan Zhang: (cfeS, COURT STAFF) (Filed on 4/10/2017) (Entered: 04/10/2017)  |